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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/611,702

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Robert W. Turner

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EXAMINER

HO, TUAN V

ART UNIT

PAPER NUMBER

2622

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/611,702	<b>Applicant(s)</b> TURNER ET AL.	
	<b>Examiner</b> Tuan V. Ho	<b>Art Unit</b> 2622	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-42 is/are pending in the application.  
     4a) Of the above claim(s) 43 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 40 and 41 is/are allowed.
- 6) ☒ Claim(s) 1,5,14,18,27-39 and 42 is/are rejected.
- 7) ☒ Claim(s) 2-4,6-13,15-17 and 19-26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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1. Applicants' election of the species of Fig. 2, claims 1-42 without traverse is acknowledged. Claim 43 is withdrawn from further consideration on the merits as non-elected claim.

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claimed "a computer program product" and "computer readable medium" in claims 27 and 42 are not describe in the specification.

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional

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descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

4. Claims 27-39 and 42 are rejected under 35 U. S. C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claims 8-10 define a signal processing program embodying functional descriptive material.

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However, the claims do not define a computer readable medium or memory and are thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" - Guidelines Annex.. IV). That is, the scope of the presently claimed program can range from paper on which the program is written, to a program simply contemplated and memorized by a person.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5, 14, 18, 27 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyazaki (US 7,365,780).

With regard to claim 1, Miyazaki discloses in Figs. 13 and 14 an image pickup apparatus performing a method that comprises the correcting an image frame (the method for correcting image frames is shown in Fig. 15, col. 17, line 17-20), the method

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comprising receiving a first image frame from a digital sensor (plurality of images are generated by CCD sensor 14 in Fig. 14); receiving a plurality of image frames from the digital sensor exposed to light below a first predefined luminance level (plurality of images are below  $-3\Delta EV$  as a first predetermined luminance level as shown in Fig. 13, col. 16, lines 3-40); receiving a plurality of image frames from the digital sensor exposed to light above a second predefined luminance level (plurality of images are above  $+3\Delta EV$  as a second predetermined luminance level); and correcting the first received image frame based on the received plurality of image frames exposed to light below the first predefined luminance level and the plurality of image frames exposed to light above the second predefined luminance level (step 1520 selects a desired image based on the first and second levels, col. 18, line 4-22).

With regard to claim 5, Miyazaki discloses in Figs. 13 and 14 an image pickup apparatus performing a method that comprises the method for receiving the image frames includes enhancing the image frames based on characteristics of the digital sensor (the first and second predetermined luminance levels are changed in according with an exposure level generated by a shutter; where the shutter speed is changed in according to a characteristic of a CD image sensor; in other words, the levels are changed so as

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to enhancing an image based on a characteristic of the image sensor, col. 4, lines 10-35).

With regard to claim 14, apparatus claim 14 corresponds to the method claim 1 and is analyzed the same as previously discussed with respect to apparatus claim 1. It should be noted that Miyazaki discloses the processor (digital processor 44, col. 4, line 45).

Apparatus claim 15 recites what was discussed with respect to method claim 5.

With regard to claim 27, Miyazaki discloses in Figs. 13 and 14 an image pickup apparatus performing a method that comprises the computer program residing on a computer readable medium (digital processor 44 is a CPU that inherently includes a program stored in a readable memory so that the processor can use the program to execute coding instructions of the program)

Claim 31 recites what was discussed with respect to claim 5.

6. Claims 2-4, 6-13, 5-17, 19-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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7. Claims 40 and 41 allowed.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ohta discloses an electronic camera that includes a racking process.

Hyodo et al discloses a digital camera that includes a composition shooting method.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan Ho whose telephone number is (571) 272-7365. The examiner can normally be reached on Mon-Fri 7:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status



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information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access

to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tuan V Ho/

Primary Examiner, Art Unit 2622